

ARGUMENTS/REMARKS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 3-6 are pending in the application.

In the outstanding Office Action, Claims 3-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanno et al. (U.S. Patent No. 6,078,572) in view of Nakamura et al. (U.S. Patent No. 5,740,168).

Briefly recapitulating, Claim 3 is directed to radio communication method of a base station used for a radio communication system employing CDMA (Code Division Multiple Access) for radio access and providing multi-rate transmission. The radio communication method includes:

- transmitting code information by message to one of the plurality of mobile stations, said code information for switching a first code being used to a second code;
- transmitting timing information by message to the one of the plurality of mobile stations, said timing information including an integer representing a frame at which the first code is switched to the second code; and
- switching the first code to the second code in synchronization with a switching of the first code to the second code at the one of the plurality of mobile stations.

Independent Claims 4-6 are directed to alternative embodiments, each reciting switching in synchronization in response to a timing message.

Tanno discloses assigning a first code to a mobile, along with timing information, in response to a transmission request signal from the mobile so to reduce collisions with other mobiles.<sup>1</sup> Before discussing specific claim limitations, the following background information

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<sup>1</sup> Tanno, column 6, line 54 – column 7, line 15.

is provided regarding the differences between Tanno and Applicants' claimed inventions.

Applicants' claimed invention is directed to code switching between a base station and a **single** mobile station. In order to retain communications between the base station and the single mobile station before and after the code switching, Applicants' claimed invention avoids a time break or a time overlap between the first code before the switching and the second code after the switching. If a time break occurs, communication is stopped. If the time overlap occurs, an extra hardware for simultaneously performing communications by both the first code and the second code is needed, which increases cost.<sup>2</sup> Therefore, the present invention is directed to an improved method of providing "timing information" by which code switching is performed **without** the time break between the base-station and the single mobile station and **without** the time overlapping.

Tanno discloses code assignment by a base station in order to simultaneously communicate between the base station and a plurality of mobile stations. The object of Tanno is to reduce collision between packets which is generated when each of a plurality of mobile stations sends a packet. Tanno disclose the transmission of "timing information" concerning **traffic control** between different mobile stations.<sup>3</sup>

In Applicants' claimed invention, a switching from the first code to the second code is performed not only in the mobile station but also in the base station. On the other hand, in Tanno, each mobile station may switch codes at the time of switching from ACCESS CHANNEL 10A to MESSAGE CHANNEL 10B, but the base station in Tanno does not include a unit for switching codes.

Thus, since Applicants' claimed invention is directed to switching codes used for communications between a base station and a single mobile station, when the mobile station

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<sup>2</sup> Specification, page 4, lines 19-23.

<sup>3</sup> Tanno, column 1, line 42 – column 2, line 4.

switches codes, the base station also needs to switch codes, in order to maintain communications between the base station and the mobile station. However, since Tanno is directed for code assignment by a base station for simultaneously communicating between the base station and a plurality of mobile stations, it is necessary for the base station to maintain a fixed plurality of codes in order to enable communications with the plurality of mobile stations using a plurality of codes. Thus, the base station of Tanno does not have a unit for switching codes and does not perform Applicants' claimed steps of transmitting and switching.

Nakamura describes a method for code switching, including the transmission of a timing signal from a base station to a mobile station.<sup>4</sup> However, Nakamura does not disclose or suggest transmitting a timing message as recited in Applicants' Claims 3-6. That is, in Nakamura, the timing information is not a Layer 3 timing message but is merely Layer 1 bit data or a Frame number.<sup>5</sup> Thus, Nakamura does not cure the deficiencies of Tanno.

As none of the cited prior art, individually or in combination, disclose or suggest all the elements of independent Claims 3-6, Applicants submit the inventions defined by Claims 3-6 are not rendered obvious by the asserted references for at least the reasons stated above.<sup>6</sup>

Furthermore, Applicants submit there is no teaching, suggestion, or motivation, either explicitly or implicitly, in either reference to combine the network switching of Tanno with the individual switching of Nakamura to arrive at Applicants' inventions recited in Claims 3-6. Thus, Applicants submit it is only through an impermissible hindsight reconstruction of

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<sup>4</sup> Nakamura, Figures 4, 20B, and 25.

<sup>5</sup> Nakamura, column 8, lines 14-26; column 16, lines 31-46.

<sup>6</sup> MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

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Applicants' invention that the rejection of Claims 3-6 can be understood.<sup>7</sup>

Accordingly, in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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<sup>7</sup> MPEP § 2143.01 "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge of one of ordinary skill in the art."